EX41922 Series

Hardened Unmanaged 2-port 10/100/1000BASE + 2-port 100/1000 SFP Ethernet Switch

Overview

EtherWAN's EX41922 Series is a compact hardened unmanaged gigabit switch, designed as an easily deployed platform for peripheral devices in harsh environments. It is a cost-effective option for surveillance systems in extreme climates.

The EX41922 Series is equipped with two 10/100/1000Base RJ-45 copper ports, and two 100/1000Base SFP fiber optic slots for long distance connectivity. The two uplink SFP interfaces provide 100 or 1000SFP speed, selected by DIP switch. They can be used in a daisy chain formation, and are compatible with the proprietary Alpha-chain redundancy protocol when used with a compatible EtherWAN managed switch. Although unmanaged, the EX41922 is feature-rich with 10K Jumbo Frame support, full wire speed gigabit throughput, QoS support, and eco-friendly IEEE802.3az EEE (Energy Efficient Ethernet) compliance. With its hardened specifications, high performance, and energy efficiency, the EX41922 is a flexible and reliable solution for extended networks.

EtherWAN – When Connectivity is Crucial.

Spotlight

- **Hardened Grade**
  - ◦ Supports -40°C to 75°C (-40°F to 167°F) operating temperature
  - ◦ Redundant power inputs on terminal block connector
  - ◦ Supports DIN-Rail mounting

- **Fiber Connectivity**
  - ◦ Up to two 1000BASE SFP ports for daisy chain or Alpha-chain applications
  - ◦ Provides 100BASE or 1000BASE SFP by DIP switch

- **Port Failure Alarm**
  - ◦ Provide relay alarm to notify users when power fails or link down occurs by DIP switch

- **Full Gigabit bandwidth and Jumbo frame**
  - ◦ Gigabit wire-speed transmission for bandwidth-demanding application
  - ◦ Jumbo frame up to 10K bytes to increase throughput and transmission efficiency

Hardware Specifications

Technology

Standards
- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX/100BASE-FX
- IEEE802.3ab 1000BASE-T
- IEEE802.3z 1000BASE-SX/1000BASE-LX
- IEEE802.1x, Full duplex flow control
- IEEE802.1az Energy Efficient Ethernet

Forward and Filtering Rate
- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

Packet Buffer Memory
- 1MB

Processing Type
- Store-and-Forward
- Auto Negotiation
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control
- Auto MDI/MDIX

Jumbo Frame
- 10K bytes

Address Table Size
- 8K MAC addresses

Power

Input Voltage
- 12~48VDC

Power Consumption
- 3.2W Max. 0.26A @ 12VDC, 0.13A @ 24VDC, 0.06A @ 48VDC

Mechanical

Casing
- Metal case
- IP30

Dimensions
- 36mm (W) x 90mm (D) x 100mm (H)
  (1.42" (W) x 3.54" (D) x 3.94" (H))

Weight
- 0.25Kg (0.55lb)

Installation
- DIN-Rail

Interface

Ethernet Ports
- 10/100/1000BASE-T: 2 ports
- 100/1000BASE SFP: 2 ports

LED Indicators
- Per Unit: Power1 (Green), Power2 (Green), Alarm (Red)
- Per Port: Link & Activity (Green)

DIP Switches
- Enable/Disable Port fault alarm, SFP port on 100BASE

Alarm Contact
- One relay output with current 1A @ 250VAC
- Supports normal close and normal open

Environment

Operating Temperature
- -40°C to 75°C (-40°F to 167°F)

Storage Temperature
- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity
- 5% to 95% (non-condensing)

Regulatory Approvals

ISO
- Manufactured in an ISO 9001 facility

EMI
FCC Part 15B Class A
VCCI Class A
EN 61000-6-4

EMS
EN 61000-6-2
- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated FRI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

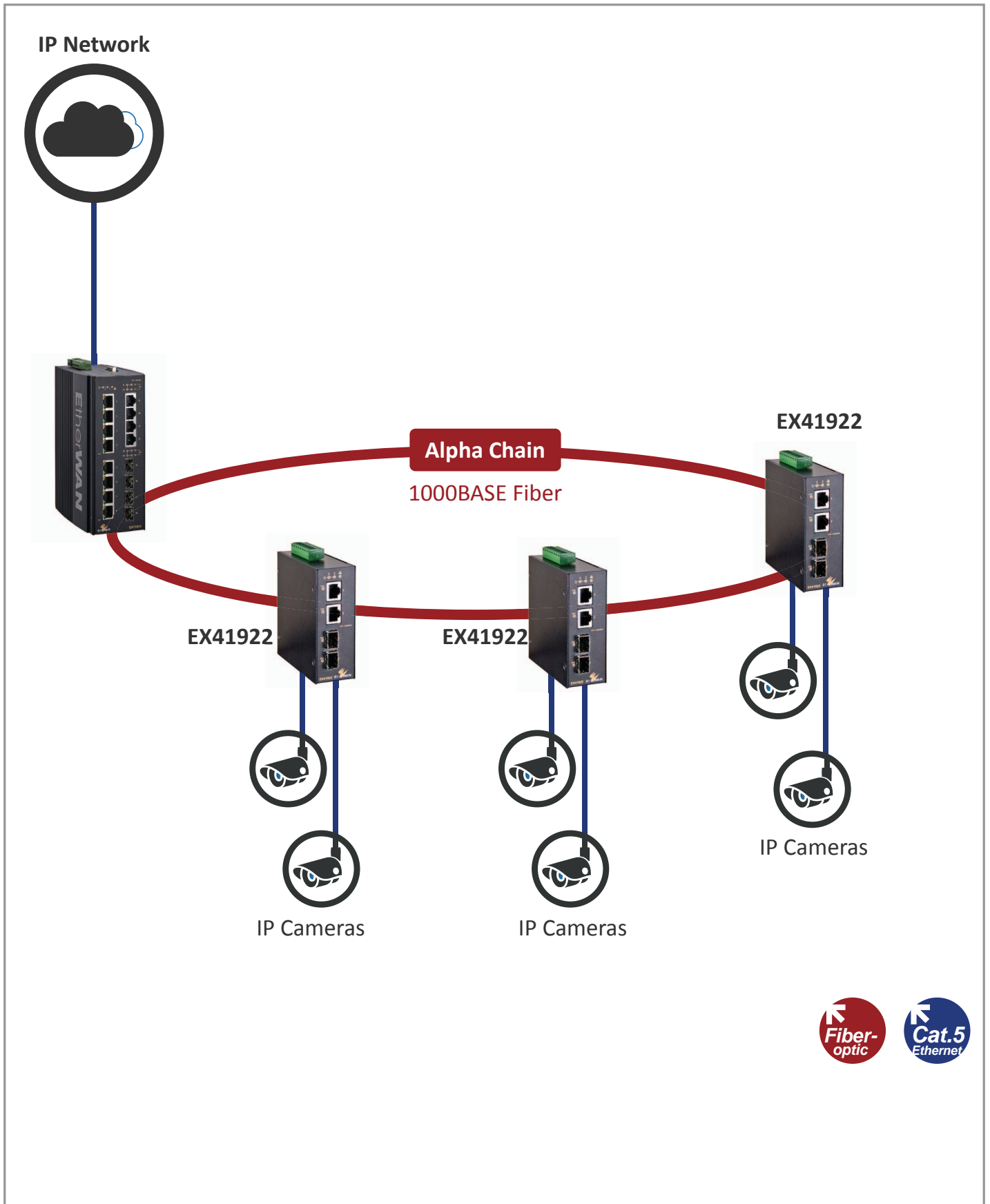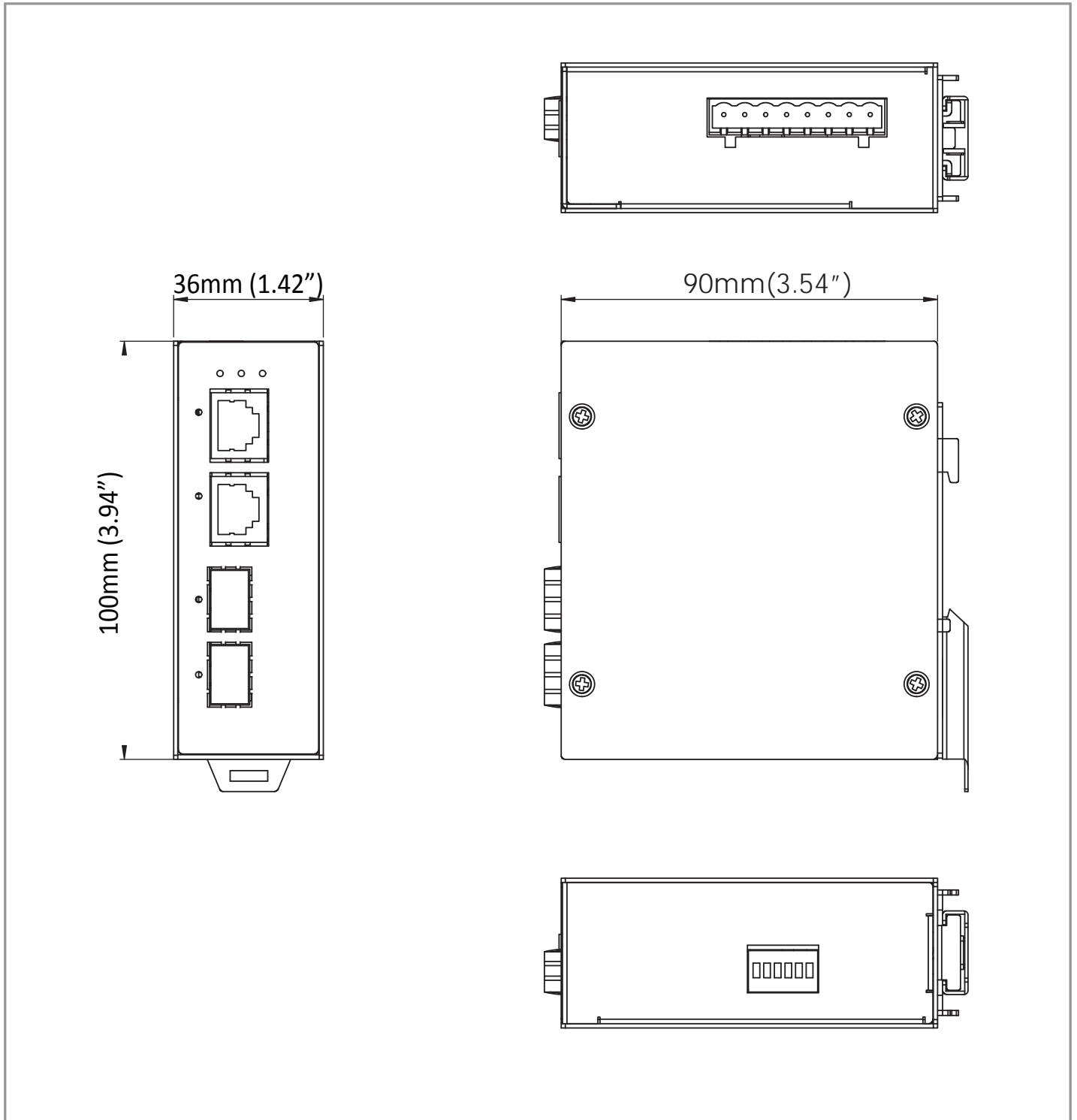### Environmental Test Compliance
IEC 60068-2-6 Fc (Vibration)
IEC 60068-2-27 Ea (Shock)
FED STD 101C Method 5007.1 (Free fall w/ package)

Application Diagram

IP Network

Alpha Chain

1000BASE Fiber

EX41922

EX41922

EX41922

EX41922

IP Cameras

IP Cameras

IP Cameras

Fiber-optic

Cat.5 Ethernet

Dimensions

36mm (1.42")

100mm (3.94")

90mm(3.54")

Ordering Information

Model

EX41922	Hardened Unmanaged 2-port 10/100/1000Base-T + 2-port 100/1000 SFP Ethernet Switch

* DIN-Rail mounting kit included